The official voice of the Air Force Research Laboratory
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Lab Laurels
Summer 2000 Volume II, Issue 2

Lab honors SILAIRUS 490 team for aircraft design

by Timothy Anderl, AFRL Headquarters

WRIGHT-PATTERSON AFB, OHIO — The Air Force Research Laboratory recently announced the winner of its Technology Transfer Award for the 1999-2000 NASA/FAA National General Aviation Design Competition for university students.

The award was presented to the SILAIRUS 490 design team from Purdue University, Ind., during the Experimental Aircraft Association's Air Venture 2000 in Oshkosh, Wis., on July 29. This is the second time the Air Force has offered an award to competition participants for incorporating Air Force-developed technologies in an aircraft design. The overall competition winners were announced by NASA and FAA as well.

For contest purposes, general aircraft are defined as single-pilot, fixed-wing, single engine, aircraft for two to six passengers. The teams propose designs for the entire aircraft or one of its systems or subsystems.

For this year's competition, a panel of Air Force Research Laboratory experts reviewed the student designs for application of Air Force technologies to select the winner of its Technology Transfer Award.

The SILAIRUS 490 team received the laboratory-sponsored award for incorporating Air Force Air Cushion Landing System research by K. H. Digges into their design.

In his 1971 report, "Theory of an Air Cushion Landing System for Aircraft," Digges explained the existing theories and their modifications for static and dynamic conditions. The SILAIRUS 490 landing system is designed using results from his experiments. At the time of the report, Digges worked for the Air Force Flight Dynamics Laboratory at Wright-Patterson AFB, Ohio.

Under a joint sponsored research agreement, the laboratory and the NASA participate in the Advanced General Aviation Transport Experiments (AGATE) Alliance. The AGATE program sponsors the design competition each year. **@**